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ABSTRACT

Growing institutional concern for excellence coupled with legislative mandates calling for accountability have prompted many colleges to emphasize student outcomes when evaluating and designing courses and programs. A careful review of the accountability literature, however, suggests that continuing education courses and students, in spite of their increasing numbers, have been largely ignored. Collecting student outcomes data for non-credit courses can help an institution: (1) improve an area of college operations that has been expanding significantly in recent years; (2) establish or enhance routine data collection concerning continuing education; (3) document the contribution of continuing education to economic development; (4) enhance the public image of continuing education; (5) respond fully to accountability mandates; and (6) preserve tax-revenue support for continuing education. Among the obstacles to assessing student outcomes in continuing education courses are that such courses may not be integrated into the college's routine research function, or that program administrators may be used to considerable autonomy and therefore resist outside efforts at assessment or change. Indicators which can be used to measure learning outcomes include student attendance and course completion rates, subsequent student employment, student and employer satisfaction, and student pursuit of further education. Information systems containing data on course content, student evaluation of courses, follow-up surveys, and employment records can serve as useful assessment tools. A literature review and a 19-item bibliography are included. (GFW)

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MEASURING CONTINUING EDUCATION OUTCOMES: ACCOUNTABILITY AND NONCREDIT POSTSECONDARY PROGRAMS

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MEASURING CONTINUING EDUCATION OUTCOMES: ACCOUNTABILITY AND NONCREDIT POSTSECONDARY PROGRAMS

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State governments, accrediting agencies, and others are demanding that colleges and universities document the progress and learning achievements of their students. Within colleges, faculty, administrators, and trustee and advisory boards are attempting to be more self-regarding and sensitive to student outcomes in evaluating and designing courses, programs, and services. Despite review of the activity surrounding the interest. a accountability issue--conferences, journal articles, public speeches--finds little mention of the outcomes of continuing education courses. Continuing education is growing, both in absolute terms and proportionately, at many colleges across the country. Yet many campuses are unable to adequately document the results of their efforts. It is our contention that colleges should know and be able to report on the student outcomes of their noncredit as well as credit programs.

We begin with a review of the few published, formal evaluations of noncredit collegiate programs identified by a search of the literature. We will then present a number of reasons for conducting a formal assessment of noncredit outcomes, identify



obstacles to such assessment, discuss implementation issues, recommend several measures of noncredit student outcomes, and suggest the creation of several continuing education databases.

Literature Review

Though many states have issued requirements for assessing institutional effectiveness, few have included indicators of noncredit student outcomes in their guidelines. Ohio claims to have issued the nation's first statewide standards for noncredit continuing education, with the Ohio Board of Regents endorsement of "Quality Standards for Noncredit Continuing Education Programs" in 1984 (Ohio Continuing Higher Education Association, 1987). Jersey included a brief mention of noncredit courses in its listing of possible measures of human resource development (Advisory Committee to the College Outcomes Evaluation Program, 1987). included states have assessment of remedial developmental programs in their accountability guidelines, and studies have been completed in this area. For example, the California community college system has completed studies of student outcomes--qoal satisfaction, retention, and acquisition -- in remedial composition and reading (Learning Assessment Retention Consortium, 1988). However, inclusion of remedial programs is often within the context of credit program assessment.

The vast majority of the literature on accountability and student outcomes assessment focusses exclusively on degree-credit



programs. Only the rare assessment guidebook or article includes any mention of noncredit outcomes. An exception is the model of institutional effectiveness developed by the National Alliance of Community and Technical Colleges (Grossman and Duncan, 1988), which included employment outcomes for noncredit students in its indicators of effectiveness in economic development. Also, as this was written, the National University Continuing Education Association (NUCEA) was circulating "Guidelines for the Assessment and Evaluation of Instructional Programs of Continuing Education" in draft form (NUCEA, 1990).

Even fewer examples of completed studies of noncredit outcomes were found. An ERIC search identified some evaluation reports of individual programs at individual institutions, but few systematic, formal assessments beyond the campus level. A 1986 article in Lifelong Learning (Burnham, 1986) suggested that "adult educators are sometimes guilty of using convenient numbers that may or may not measure what we are really trying to accomplish" and that they have "relied upon numbers of people attending programs to demonstrate worth, while legislators and other stake holders have been asking what differences its activities make in the lives of people." The article concluded that we need to move "from inputs to impacts" (p.6). A 1990 article in the Continuing Higher Education Review (Long, 1990) reported the results of a Delphi survey of continuing education deans and directors that concluded that "greater attention needs to be paid to learning outcome assessment." The ERIC search and a telephone survey of higher



education agencies in all 50 states (Diehl, 1990) identified only four states in which formal statewide assessments of the learning outcomes of noncredit or continuing education had been completed: Florida, Kansas, Maryland, and New York. Community colleges in Iowa and Delaware were undertaking such studies in the summer of 1990, as this was written.

Florida was the only state identified to date to have included noncredit programs in routine, annual program evaluation processes at the state level. Noncredit job preparatory programs, but not continuing education programs, are included in the three-level yearly program review coordinated by the state. The job prep programs have their own annual data displays—one for each program at each campus—and are of en included in the programs identified for further review by the Florida community colleges that also serve as area vocational centers. Florida's Education and Training Placement Information Program, which uses state employer wage record files, plus postal service and federal department of defense and civil service files to determine the employment (and through follow-up surveys, employer satisfaction) of former vocational students, also includes the noncredit job preparatory students.

The Kansas study (Oaklief, 1987) involved a mail questionnaire to test a typology of 6 economic and 13 noneconomic noncredit adult learning benefits. Samples were drawn from seven groups of noncredit adult learners in Kansas (adult basic education, business managers, vocational-technical students, community college students, registered nurses, and Pride and non-Pride Cooperative



Extension Service participants). The mail survey yielded 1,335 usable responses. Respondents assigned a value from one (little or no benefit) to four (a great benefit) to 19 potential benefits of their noncredit learning experience. The top five rated benefits across all seven participant groups were (1) becoming better informed about some subject, (2) learning recent job knowledge, (3) gaining from self improvement, (4) preparing to handle increased job responsibility, and (5) improving interest and skill in learning. Very little benefits were perceived in improving basic reading and writing skills, learning to be effective in politics, and increasing appreciation of art and culture. There were some differences between groups. Adult basic education participants ranked "developing positive feelings about myself and my worth as a person" highly. The community college participants ranked learning to be effective in politics and increased appreciation of art and culture higher than other groups. The overall conclusion drawn from the survey was that all seven groups of noncredit learners reported both economic and noneconomic benefits from their educational experience.

Lessons learned from the Maryland and New York studies, the most comprehensive evaluations of postsecondary continuing education completed to date, inform the balance of this essay.

Reasons for Assessing Continuing Education Outcomes

There are important reasons why a college, university, consortium of institutions, or state system might want to assess



continuing education outcomes. Several of these reasons will be explored below, with specific references to motivations underlying the Maryland community college study.

To Improve a Growing Area of College Operations. The fundamental reason for evaluation is to improve the activity The need becomes greater as the activity being evaluated. increases in importance. At many campuses, noncredit continuing education enrollment is growing at a much faster rate than credit operations. For example, equated-credit full-time equivalent enrollment in continuing education among Maryland's 17 community colleges more than doubled over the 6year period 1983-1989. Even more important than the rate of growth, however, is the increasing share of total enrollment accounted for by noncredit operations. Noncredit courses accounted for nearly a third (31 percent) of all state-funded enrollment in Maryland's community colleges in fiscal year 1989. To omit such a large proportion of college operations from formal evaluation efforts would be inexcusable.

To Establish or Enhance Routine Data Collection Concerning Continuing Education. In a March 1989 Policy Statement, the American Association of Community and Junior Colleges recommended that continuing education professionals "validate and disseminate data attesting to the quality of programs and services" and that legislators and other policy makers "call



for research and data on community services and continuing education. At many colleges, continuing education data systems are less sophisticated than those on the credit side, and often continuing education is not well integrated into college recordkeeping, institutional research, and reporting mechanisms. As a result, information about continuing education is not systematically and routinely developed, and the role of continuing education not fully understood.

To Document the Contribution of Continuing Education to Evidence of effective support of Economic Development. local, regional, and state economic development lends strong legitimacy to noncredit programming. In Maryland, a new governor had recently been elected largely as a result of his pro-economic development reputation. Colleges anticipated that he might support additional funding for higher education, and realized the value of demonstrating the contributions of continuing education to workforce enhancement. Data were needed to document the outcomes of licensure and certification preparation courses, apprenticeship training programs, employee training through contract arrangements, and in open enrollment courses. This emphasis was reflected in the design of the Maryland study, which included survey oversampling of students in work-related courses to ensure an adequate number of respondents in each category at each college. In addition, responses of students in work-related courses were analyzed



separately from students in courses designed for seniors and nonvocational students. In New York, the SUNY Office of Community Colleges determined that their greatest need was for an evaluation of contract courses—courses designed to meet the specific needs of clients and delivered according to negotiated agreements—and so their initial study focused on them (Fadale and Winter, 1988). A second study followed, examining remedial, vocational preparation, and community services courses. In addition to the quantitative findings, the SUNY final report included transcribed comments from identified employers attesting to the value of the training provided—making the report effective for public relations as well as research purposes.

Enhance the Public Image of Continuing Education. Protecting a reputation for quality within the community and among public officials may be a concern. Certain recreational courses, though self-supported and not subsidized by taxes, may undermine the image of continuing education. The issue is not whether the courses in question may have intrinsic value whether they might be perceived as frivolous inappropriate offerings for an institution of higher learning. While never comprising more than a small fraction of continuing education offerings, they may attract disproportionate amount of attention, unduly influencing public perceptions of the offering institution. Such concerns led to the following recommendation in Blueprint for Quality,



the final report of the Committee on the Future of Maryland Community Colleges: "That community college continuing education divisions limit their noncredit offerings to courses that reflect the institution's role in higher education and enhance the image of the community college." The committee felt that the revenue gains of meeting the demand for these recreational offerings mus: be carefully weighed against possible damage done to the reputation of the college. committee was concerned that the public might misunderstand which courses were being supported by tax funds, and in general that there was little public awareness of what continuing education was really about. Better information concerning the impact of continuing education courses can present a truer picture of continuing education. Measures such as student course attendance and completion can demonstrate the seriousness of both student and college intentions. It is important for these public relations purposes that special attention be paid to the presentation of study findings to maximize their impact. Presenting data well is both art and science, and can be facilitated by adherence to proven principles (Clagett and Huntington, 1990).

To Respond Fully to Accountability Mandates. State legislatures, higher education agencies, and accrediting organizations are requiring student outcomes information in various accountability mandates. The size of continuing



education enrollment at many institutions, especially to the extent such courses are tax-assisted, suggests that accountability reports should include noncredit student outcomes data, even where they are not specifically required.

To Preserve Tax Support for Continuing Education. Tax assistance of continuing education varies across the country. Where it exists it soon comes to be considered indispensible. In Maryland's community college system, the continuing education courses which are eligible for state aid are funded at the same rate as credit courses. Each college therefore had a large financial incentive to demonstrate the value of these courses to public officials. This was a fundamental, though often unmentioned, "bottom-line" reason for the study. Similar motivations underlay the SUNY study, cooperation of individual campuses in the study. The study took place during a period of budget discussions at the state level when aid for noncredit courses was being threatened (Winter and Fadale, 1989). The SUNY report was reviewed by a New York state legislative committee while still in draft!

Common Obst cles to Noncredit Outcomes Assessment

Accomplishing a useful evaluation of noncredit student learning outcomes is a challenging task. The research professional should be aware of and take steps to overcome the following obstacles.



Many continuing education administrators are accustomed to operating somewhat autonomously on their campuses, and their independent, entrepreneurial spirit may resist attempts at formal evaluation by "outsiders." Continuing education may not, therefore, be integrated into the college's routine institutional research function. Even simple enrollment tracking and descriptive analyses may not have been done before. In states where continuing education is not state-assisted, it may not be included in accountability mandates and thus the external motivation for assessment may be absent.

Existing databases about the institution's continuing education students may be very limited. Often an abbreviated course registration form is used for noncredit students, part of the overall "ease of entry" and user-friendliness characteristic of the noncredit philosophy. As a result, even basic background variables routinely collected and available on the student information system for credit students may be lacking for continuing education students.

Many continuing education offerings are of short duration, giving the institution little time to greatly influence student development.

Implementation of an Assessment of Continuing Education Outcomes

Once the decision to conduct a formal evaluation of continuing education outcomes has been made, decisions as to approach and method arise. The Maryland experience suggests that a study



committee comprising both continuing education and research professionals can be a fruitful collaboration. The continuing education administrators provide expertise on the content of noncredit programming and can sensitize the researchers to potential areas of resistance to formal evaluation. The researchers bring evaluation expertise and can argue the case for ongoing assessment and database maintenance. Together, the continuing education and research professionals can determine the study populations and noncredit student outcomes measures most appropriate to the purpose of the study.

Study Populations

Students who take continuing education courses are extremely diverse group, and the design of an outcomes assessment should take this into account. In order to limit the complexity of both the design and reporting of the evaluation, you may wish to cover only a portion of the continuing education program. In Maryland, the assessment covered only state-supported courses. Within that wide variety of courses and students, the research design focused on different groups of courses and students. example, students in work-related courses, students in nonvocational courses, and senior citizens in special seniors courses were analyzed and reported separately. In addition, analysis might focus on course intent, with separate evaluation mechanisms for open enrollment courses, remedial/literacy courses, courses targeted to students seeking licensure or certification or



taking courses as part of their apprenticeship program, and on courses designed for particular businesses. The advantage of a segmented research design is that assessment instruments can be specifically tailored to each study population, resulting in more detailed and useful information. Such an approach, however, greatly increases the cost, in time, money, and effort. A less expensive, less optimal but still useful approach is to employ a "generic" evaluation instrument for all students and courses. Separate analyses can still be done for specific populations of interest, but the questions and responses may not be as sharply focused.

Measures of Noncredit Student Outcomes

A variety of indicators for measuring noncredit student outcomes are available, with their selection depending on the nature of the course or program:

Course attendance. In evaluating credit programs, a basic indicator is program completion or at least progress through the program. In continuing education courses, which usually don't fit together in a structured curriculum, the extent of student attendance of continuing education course sessions is suggestive of the student's seriousness of purpose and is useful in interpreting other outcomes findings. This indicator can be gathered from instructor records or via a survey question.



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Completion of course requirements. For courses with specific requirements, a measure of completion constitutes a fundamental achievement indicator. Awarding of continuing education units or CEUs in courses where they are offered is an example.

Achievement or maintenance of licensure or certification. estate agents and brokers, property and casualty insurance professionals, child care workers, and others may need annual or continuing education to maintain valid Instruction to prepare students for the certifying examinations in such fields and in other areas such as emergency medicine, food sanitation, water safety, pool operation, and waste water management are frequently offered in continuing education courses. Universities may offer continuing professional education for nurses, physicians, and lawyers. A student may be certified, licensed, or receive a letter of endorsement by either passing an examination or successfully completing required coursework. Pass rates on licensure examinations or rates of achievement of certification through successful coursework constitute good outcomes measures for noncredit instruction. They are clearly related to student intent and use externally determined assessment criteria.

Employment. For continuing education programs of sufficient duration and purpose, the subsequent employment history of program completers may be an appropriate outcomes measure. Such measures



are useful in assessing courses in Job Training Partnership Act and welfare reform programs, for example.

Pursuit of Further Education. The subsequent educational experience of course completers may be an appropriate outcome measure. The proportion of students taking further noncredit or credit courses, and those continuing in an area of interest may, in some circumstances, be considered as indicators of favorable outcomes.

Achievement of personal goal. To be meaningful, student outcomes assessment must take student goals into account (Clagett, 1989). Students attend college, and continuing education courses in particular, for a wide variety of reasons. Colleges need to know why students enroll to better understand their motivations and better meet their needs. In addition to job-related goals, such as preparing for a new career or updating job skills, students may attend for social or enrichment reasons or to explore academic options. A study of noncredit outcomes should include identification of student goals and the students' perception of the extent to which they were met.

Student satisfaction indices. Measures of student satisfaction with their continuing education experience, gathered from course evaluation forms or subsequent follow-up surveys, provide another perspective on program effectiveness. General satisfaction scales,



and ratings of instruction or other aspects of a course or program, can yield useful though limited feedback to the instructor and those supervising the course. When collected and aggregated across courses this type of indicator can provide a basic barometer of the success of the continuing education enterprise.

Employer satisfaction, cost savings, and suggestions. Employers who contract with colleges for firm-specific training, or who sponsor employee participation in open-enrollment courses, can also be surveyed or interviewed. The evaluation design can yield information concerning employer satisfaction with the college training, estimated savings by using the college as opposed to inhouse training, and suggestions for improvement. Since program and course coordinators can be expected to jealously protect their client relationships, such surveys are best conducted by the colleges rather than a central office. However, this procedure must be carefully monitored so that a representative sample of employers are surveyed and reported. The college cannot afford to report only the experiences of those with which the college has the best relationships. In all surveys, but especially those asking business leaders to evaluate a contract, the questions and procedures need to be carefully and fairly worded and not subject to misinterpretation. A short feedback sheet is preferable to a lengthy questionnaire (Fadale and Winter, 1988).



Databases for Continuing Education Assessment

Despite the size and growing importance of the continuing education enterprise it is often the area with the poorest recordkeeping tools and procedures. Data on students and courses scattered across multiple computer files. may office microcomputers, and file cabinets. At some colleges, continuing education data management remains a "shoe box" operation. Historical data from college files which might be used to track the out omes and progress of students have probably not been collected, or may be unevenly coded. In this section, we suggest several databases that might be designed and maintained to assist in assessing noncredit student outcomes.

Student and Course Information Systems. A continuing education student information system which goes beyond accounting information may need to be designed and implemented before assessment of student outcomes can proceed. Such an information system should include many of the data elements routinely collected, stored and used to describe the characteristics and goals of students taking credit courses. New class registrations procedures may need to be established to ensure evenly collected information concerning student characteristics such as age, previous educational attainment, student goals, and reasons for attending the continuing education course. In Maryland, as we built our continuing education student database, we also designed a taxonomy for courses which classifies each course by subject matter, course intent, and



whether the course was targeted to a special population.

The institutional research office, as one of several users of this information, needs to be involved in the design of the systems, taxonomies, and procedures for collecting and coding this information. The need to track students from course to course, to maintain historical as well as current characteristics of students and courses, and to maintain coding structures may not be as apparent or as important to other users of these data systems.

Course evaluations. In addition to the accountability information that can be retrieved from well-designed course and student information systems, the researcher concerned with continuing education should ensure that individual course evaluation forms are well designed and are being processed so that results can be compared across courses, over time, and can be aggregated so they support judgments on the quality of the larger continuing education enterprise. Most course evaluations are collected from students. collated and used to evaluate the course and instructor, returned to the instructor, and then destroyed. Maintaining a database of student evaluations, or at least a file which summarizes these evaluations, can be a useful tool in accountability research. With ... this information, an accountability report on continuing education could describe the student course evaluation procedures summarize the results of the individual class evaluations. For example, "Students in each of the 15 Emergency Medical Paramedic sections evaluated the course and their instructor using the



college's course evaluation survey. Two hundred of the 215 students (93 percent) taking the course were highly satisfied with the course content and coverage. Ninety-five percent reported they would highly recommend the instructor to their colleagues."

Follow-up survey files. As mentioned earlier, periodic surveys of continuing education students and sponsoring employers can help the college understand and explain student goals and expectations and now these customers perceived their experience with the college. These survey responses can be preserved in data files for future analysis, linked to other databases, and used to maintain address files for marketing contacts.

Licensure and certification examination results. An increasing number of continuing education students use the college to prepare for employment-related examinations or to fulfill requirements for maintaining professional qualifications. In Maryland, we found that results from examinations in allied health and real estate professions were available by college. However, the records of continuing education students in apprenticeship programs and other areas requiring external certification did not identify where the student had taken his or her preparation courses. In addition to establishing their own recordkeeping mechanisms, researchers may have to initiate discussions with certifying organizations to obtain the desired data.



as part of a Job Training Partnership Act or similar governmentsponsored training program often have elaborate work and welfare
history files. Coordination with those conducting evaluations of
these and related programs may provide valuable data regarding both
the students' experience in courses and their subsequent employment
history. Several states are exploring processes similar to
Florida's, namely the matching of state wage record data with
college student files to help assess the impact of college on instate employment.

Conclusions

As of 1990, fewer than a fifth of the states had undertaken formal assessments of postsecondary, noncredit continuing education programs. Assessment activities were more frequent in states providing funding assistance for noncredit programming, though that was no guarantee of formal outcomes study. Many states, however, in response to accrediting agency or legislative mandates, have begun discussions concerning assessment that would include some noncredit offerings. This essay has argued that there are important reasons for conducting outcomes assessments in the noncredit area, and has suggested several indicators and continuing education databases appropriate to such efforts.



References

- Advisory Committee to the College Outcomes Evaluation Program. (1987). Report to the New Jersey Board of Higher Education from the Advisory Committee to the College Outcomes Evaluation Program. Trenton, NJ: New Jersey Board of Higher Education.
- Behal, E. L. (1983). After the GED Tests: Postsecondary Education Enrollment Patterns and Perceptions of GED Examinees. Washington, D.C.: American Council on Education.
- Burnham, B.R. (1986). Assessing significance in continuing education: A needed addition to productivity. <u>Lifelong Learning</u>, 9 (6), p. 6-26.
- Cervero, R. M. & Peterson, N. L. (1982). <u>After the GED Tests:</u> <u>Employment and Training Activities of GED Examinees</u>. Washington, D.C.: American Council on Education.
- Clagett, C. A. (1989). Student goal analysis for accountability and marketing. Community College Review, 16 (4), p.38-41.
- Clagett, C.A. & Huntington, R.B. (1990). <u>The Institutional Research Practitioner: A Guidebook to Effective Performance</u>. Silver Spring, MD: Red Inc. Publications.
- Diehl, P. K. (1991). Survey of state higher education agencies to identify noncredit outcomes assessment projects. (Unpublished report). Largo, MD: Office of Institutional Research and Analysis, Prince George's Community College.
- Fadale, L. M. & Winter, G. M. (1988). <u>Impact of Economic Development Programs in SUNY Community Colleges: A Study of Contract Courses</u>. Albany, NY: Two-year College Development Center, University at Albany, State University of New York.
- General Educational Development Testing Service. (1987). <u>Tests of General Educational Development Bibliography</u>. Washington, D.C.: American Council on Education.
- Grossman, G. M. & Duncan, M. E. (1988). <u>Assessing the Institutional Effectiveness of Community and Technical Colleges</u>. Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University.
- Learning Assessment Retention Consortium. (1988). <u>Student Outcomes Study, Year 2 Final Report: Reading</u>. Santa Ana, CA: Rancho Santiago College Research Center.



Long, H.B. (1990). Research trends, topics, results, approaches and funding in continuing higher education: A delphi study. Continuing Higher Education Review, 54 (1), p. 1-10.

Maryland State Board for Community Colleges. (1988). Continuing Education Outcomes. Annapolis: Maryland State Board for Community Colleges.

Maryland State Board for Community Colleges. (1988). Continuing Education Student Follow-up Report. Annapolis: Maryland State Board for Community Colleges.

National University Continuing Education Association. (1990). Guidelines for the assessment and evaluation of instructional programs of continuing education. Draft report. Washington, DC: National University Continuing Education Association.

Oaklief, C.R. (1987). Benefits of noncredit adult education for seven participant groups. Lifelong Learning, 10 (7), p. 21-25.

Ohio Continuing Higher Education Association (1987). Quality Assurance in Noncredit Continuing Education. Columbus, OH: Ohio Continuing Higher Education Association.

Sticht, T. (1990). <u>Testing and Assessment in Adult Education and</u> English as a Second Language Programs. San Diego: Applied Behavioral and Cognitive Sciences, Inc.

Winter, G. M. & Fadale, L. M. (1989). An Assessment of State Aidable Noncredit Courses at SUNY Community Colleges. Albany, NY: Two-year College Development Center, University at Albany, State University of New York.



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